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#### REMARKS

Claims 93 and 94 are pending in the above-identified application. By this Amendment, applicants have amended claims 93 and 94. The amendments to claim 93 are supported by the application as originally filed, at, *inter alia*, page 8, lines 3-7; page 12, lines 13-14; and Figure 1. The amendments to claim 94 are supported by the application as originally filed, at, *inter alia*, page 8, lines 3-7; page 12, lines 13-14; Figure 1; and Figure 3. Applicants maintain that the amendments to the claims raise no issue of new matter, and therefore request that this Amendment be entered into the application. After entry of this Amendment, claims 93 and 94 will be pending and under examination.

#### Claims Rejected Under 35 U.S.C. §112, Second Paragraph

In the June 3, 2003 Final Office Action, the Examiner stated that claims 93-94 remain rejected under 35 U.S.C. §112, second paragraph, pertaining to the size of the claimed consecutive amino acids, for reasons already of record in paper No: 31. The Examiner stated that applicants argue that the claimed protein in claim 93 consists of consecutive amino acids extending between two defined residues, the sequence of which is set forth in SEQ ID NO:2, and thus the claimed protein cannot have any length, nor any structure. The Examiner stated that applicants further assert that the claimed protein extends from a proline corresponding to the proline at position 568 of SEQ ID NO:2 to a glycine corresponding to the

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glycine at position 416 of SEQ ID NO: 2, thus defining the size of the consecutive amino acids.

The Examiner stated that applicant argues that the claimed protein in claim 94 consists of consecutive amino acids, the sequence of which amino acid is included in the sequence set forth in SEQ ID NO:1. The Examiner stated that applicants argue that the sequences of the claimed proteins must be included in the sequence set forth in SEQ ID NO:1, and that this necessarily characterizes both sequence and the length of the claimed protein.

The Examiner stated that applicants' arguments in paper No: 32 have been considered but are found not be persuasive for the following reasons. The Examiner stated that, concerning claim 93, applicants argue a limitation not in the claim. The Examiner further stated that claim 93 does not recite the limitation of "consisting of consecutive amino acids extending between two defined residues, the sequence of which is set forth in SEQ ID NO:2." The Examiner also stated that it is noted that due to the language "the sequence of which amino acid is included within the sequence set forth in SEQ ID NO:2", the claimed protein could have any length and any structure, provided part of the sequence of which is the same as that of SEQ ID NO:2. The Examiner stated that further, due to the language "corresponding", the protein of claim 93 needs only to have two amino acids, proline and glycine, at any position, since said protein would have amino acids proline and glycine "corresponding" to proline at position 568 of SEQ ID NO:2 at its carboxy terminus, and glycine at position 416 of SEQ ID NO:2, respectively. The Examiner stated that similar reasons for

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rejection apply for SEQ ID NO: 1 of claim 94.

In response, applicants respectfully traverse the Examiner's rejection. However, without conceding the Examiner's position, and in order to expedite prosecution, applicants have amended claims 93 and 94 to more clearly claim the subject matter. Applicants maintain that with respect to the Examiner's rejection regarding the size of the claimed consecutive amino acids, the claims clearly comply with the provisions of 35 U.S.C. §112, second paragraph. Accordingly, applicants request that the Examiner reconsider and withdraw this ground of rejection.

In addition, applicants note that the Examiner has quoted language from claim 93 not actually present in claim 93. Claim 93, as recited in applicants' Amendment filed on June 12, 2002, which was initially denied entry by the Examiner in the (undated) Advisory Action issued in connection with the above-identified application, and then requested entered by applicants in their CPA Request Transmittal filed on October 15, 2002, and then stated by the Examiner as entered in the December 31, 2002 Office Action issued in connection with the above-identified application, does not contain the phrase "included within the sequence set forth in SEQ ID NO:2" as stated by the Examiner. Applicants are bringing this to the Examiner's attention in part to qualify the current mark-up of claim 93 as shown hereinabove.

The Examiner also stated that the claim language is confusing. The Examiner stated that given applicants' arguments, it appears that applicants may be claiming a polypeptide consisting of the amino

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acids 415-567 of SEQ ID NO:1 or the amino acids 416-568 of SEQ ID NO:2. The Examiner stated that if this is in fact the scope of the claimed invention, applicants might consider clarifying the claims. The Examiner stated that she would be willing to consider claims submitted after final if they are drawn to, for example, for claim 93, a polypeptide consisting of the amino acids 416-568 of SEQ ID NO:2, and for claim 94, a polypeptide consisting of the amino acids 415-567 of SEQ ID NO:1.

In response, applicants respectfully traverse the Examiner's rejection. However, without conceding the Examiner's position, and in order to expedite prosecution, applicants have amended claims 93 and 94 to more clearly claim the subject matter. Applicants maintain that with respect to the Examiner's clarity objection, the claims clearly comply with the provisions of 35 U.S.C. §112, second paragraph. Accordingly, applicants request that the Examiner reconsider and withdraw this ground of rejection.

#### Claims Rejected Under 35 U.S.C. §112, First Paragraph

The Examiner stated that claims 93-94 remain rejected under 35 U.S.C. §112, second paragraph, pertaining to lack of a clear written description of the claimed proteins, for reasons already of record in paper No:31. The Examiner stated that applicants argue that a sequence consisting of two amino acids, proline and glycine, is not set forth in SEQ ID NO:2. The Examiner stated that applicants further argue that the claimed protein cannot have any length, because the claimed protein consists of consecutive amino acids extending between the two defined residues, "the sequence of

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which is set forth in SEQ ID NO:2", as cited in claim 93. The Examiner also stated that applicants further assert that the claimed protein cannot have any structure, because claim 93 characterizes the claimed protein as consisting of consecutive amino acids, the sequence of which is set forth in SEQ ID NO:2. The Examiner further stated that applicants argue that claim 94 has been amended to recite a protein consisting of consecutive amino acids, the sequence of which must included in the sequence set forth in SEQ ID NO:1.

The Examiner stated that applicants' arguments in paper No: 32 have been considered but are found not to be persuasive for the following reasons. The Examiner stated that, concerning claim 93, applicants argue a limitation not in the claim. The Examiner stated that claim 93 does not recite protein consists of consecutive amino acids "extending between the two defined residues, the sequence of which is set forth in SEQ ID NO:2". The Examiner further stated that it is noted that due to the language "the sequence of which amino acid is included within the sequence set forth in SEQ ID NO:2", the claimed protein could have any length and any structure, provided part of the sequence of which is the same as that of SEQ ID NO:2. The Examiner also stated that there is no limitation in the claim of the size of the sequences which has to be included in SEQ ID NO:2.

The Examiner stated that further, due to the language "corresponding", the protein of claim 93 needs only to have two amino acids, proline and glycine, at any position, since said protein would have amino acids proline and glycine "corresponding"

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to proline at position 568 of SEQ ID NO:2 at its carboxy terminus, and glycine at position 416 of SEQ ID NO:2, respectively. The Examiner stated that similar reasons for rejection apply for SEQ ID NO:1 of claim 94. The Examiner further stated that the claim language is confusing. The Examiner stated that, given applicants' arguments, it appears that applicants may be claiming a polypeptide consisting of the amino acids 415-567 of SEQ ID NO:1 or the amino acids 416-568 of SEQ ID NO:2. The Examiner stated that if this is in fact the scope of the claimed invention, applicant might consider clarifying the claims. The Examiner also stated that she would be willing to consider claims submitted after final if they are drawn to, for example, for claim 93, a polypeptide consisting of the amino acids 416-568 of SEQ ID NO:2, and for claim 94, a polypeptide consisting of the amino acids 415-567 of SEQ ID NO:1.

In response, applicants respectfully traverse the Examiner's rejection. However, without conceding the Examiner's position, and in order to expedite prosecution, applicants have amended claims 93 and 94 and have removed the term "corresponding" as objected to by the Examiner, in order to more clearly claim the subject matter. Applicants maintain that the claims clearly comply with the provisions of 35 U.S.C. §112, first paragraph. Accordingly, applicants request that the Examiner reconsider and withdraw this ground of rejection.

**Claims Rejected Under 35 U.S.C. §102(b)**

The Examiner stated that claims 93-94 remain rejected under 35 U.S.C. §102(b), pertaining to anticipation by Sato et al., for

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reasons already of record in paper No:31.

The Examiner stated that applicants argue that concerning claim 93, the amino acid sequence of Sato et al. has 181 amino acids, which extends from a proline at equivalent position 568 of SEQ ID NO:2 to well beyond the glycine corresponding to the glycine at position 416 of SEQ ID NO:2.

The Examiner stated that applicants further assert that concerning claim 94, none of the polypeptides disclosed by Sato et al. consists of consecutive amino acids having a sequence included in the sequence set forth in SEQ ID NO:1.

The Examiner stated that applicants' arguments in paper No: 32 have been considered but are found not to be persuasive for the following reasons. The Examiner stated that the limitation of a protein consisting of a sequence "set forth" in SEQ ID NO:2, "which sequence extends from proline at position 568 of SEQ ID NO:2 at its carboxy terminus, and glycine at position 416 of SEQ ID NO:2" is not in the claim 93. The Examiner stated that thus applicants argue a limitation not in the claim. The Examiner stated that, further, it is noted that due to the language "the sequence of which amino acid is included within the sequence set forth in SEQ ID NO:2", the claimed protein of claim 93 could have any length and any structure provided part of the sequence of which is the same as that of SEQ ID NO:2. The Examiner stated that there is no limitation in the claim of the size of the sequence which has to be included in SEQ ID NO:2. The Examiner stated that similar reasons for rejection apply for SEQ ID NO:1 of claim 94. The Examiner finally stated that

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thus the sequence taught by Sato et al. seems to be the same as the claimed sequences in claims 93-94.

In response, applicants respectfully traverse the Examiner's rejection. However, without conceding the Examiner's position, and in order to expedite prosecution, applicants have amended claims 93 and 94 to more clearly claim the subject matter. Applicants note that the claimed subject matter is clearly not anticipated by Sato et al. which discloses a shortest sequence of 181 amino acids (see Sarto et al., page 115, first column, and figure 1) which is longer than either protein claimed by applicants. Applicants maintain that the claims comply with the provisions of 35 U.S.C. §102(b). Accordingly, applicants request that the Examiner reconsider and withdraw this ground of rejection.

In summary, in light of the remarks made hereinabove, applicants respectfully request that the Examiner reconsider and withdraw the various grounds of rejection set forth in the June 3, 2003 Final Office Action.

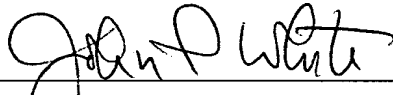
If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.



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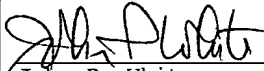
No fee, apart from the enclosed \$55.00 fee for a one month extension of time, is deemed necessary in connection with the filing of this Amendment. If any such fee is required, authorization is hereby given to charge the amount of such fee to Deposit Account No. 03-3125.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA, 22313-1450, Mail Stop AF

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John P. White Date  
Reg. No. 28,678